

Application No.10/719,091  
Letter of Response dated 07/21/2004  
Reply to Office Action of 07/09/2004

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 1-19 are pending in this case. Of these claims, claims 12-19 have been withdrawn from consideration.

With regard to the requirement for election and restriction, the election of Group 1 consisting of claims 1-11, directed to a primer removal tool, is hereby confirmed. Applicant reserves the right to file a divisional application on the non-elected invention of group II consisting of claims 12-19, directed to a primer removal method.

Claims 1-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hasselman (U.S. Pat. 4,407,086). Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mirles (U.S. Pat. 5,573,357). Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Harchar (U.S. Pat. 5,225,614). These rejections are traversed for the following reasons.

Applicant's invention as recited in base claim 1 is directed to a tool for removing a damaged primer from a cannon's primer chamber. The tool 19 comprises a starter tap 21, means 23-31 for running the tap into the damaged primer, and means 33 for shaking the damaged primer loose from the primer chamber so that the damaged primer comes out of the primer chamber on the edge of the tap. Claims 2-9 further define the tool.

Applicant's invention as recited in base claim 10 is directed to a primer removal tool 19 comprising a starter tap 21, a holder 27 for the starter tap, at least one setscrew 29 passing through the holder and against the starter tap for securing the starter tap in the holder, a handle 23, a spacer bushing 25 connected to the center of the handle, a shaft 31 having one end connected to the holder and the other end connected to the spacer bushing, and a knurled slider 33 on the shaft, the slider being constrained to slide between the holder and the spacer bushing. Claim 11 further defines the tool.

In operation of the tool 19, the starter tap 21 is inserted into the center of the damaged primer 17; the tool 19 is held parallel to the centerline of the cannon bore while applying forward pressure; the handle 23 of the tool is rotated clockwise to run the tap into the primer a few turns; and the handle of the tool is then rotated counterclockwise one-quarter of a turn. These steps are repeated until most of the tap is in the primer chamber 13. Next, the slider 33 is gripped; the slider is pushed forward toward the primer chamber 13; and then the slider is quickly pulled backward against the spacer bushing 25. This motion is repeated until the damaged primer 17 comes out of the primer chamber 13 on the edge of the tap 21.

Hasselman discloses an apparatus for removing a musket ball 55 that is lodged in the breech 21 of a muzzle-loading gun 11. A removable ball starter 15 is secured to one end of a ramrod 13, and a screw-jag tool 17 is secured to the other end of the ramrod. Using the grip 41 of the ball starter 15 as a handle, the screw-jag tool 17 is screwed into the musket ball 55 and is then withdrawn through the barrel 19.

Hasselman does not anticipate the invention recited in claims 1-11.

First of all, the Examiner has disregarded the preambles in claims 1-9 calling for “A tool for removing a damaged primer from the primer chamber of a cannon.” The preambles of the claims recite the removing tool as being intended for damaged primers, and the bodies of the claims recite structural relationships with the removed damaged-primers. For example, claim 1 recites means for running a tap into the damaged primer, and means for shaking the damaged primer loose. Therefore, the preambles of the claims have given life and meaning to these recitations in the claims, and these factual differences were not properly considered in evaluating the invention against the teachings of the prior art. See *Ex parte Kice*, 211 USPQ 560 (POBA 1980). Hasselman’s device does not meet the preamble limitation, “A tool for removing a damaged primer from the primer chamber of a cannon.” His device is an apparatus for removing a musket ball that is lodged in the breech of a muzzle-loading gun.

Next, respecting claims 1-9, Hasselman does not teach “means for shaking the damaged primer loose from the primer chamber so that the damaged primer comes out of the primer chamber on the edge of the tap.” 35 USC §112 ¶ 6 provides that an element in a claim for a combination may be expressed as a means for performing a specified function and shall be construed to cover the corresponding structure described in the specification and equivalents thereof. 35 USC §112 ¶ 6 applies as part of a patentability determination in the PTO. *In re Donaldson Co.*, 16 F3d 1189, 29 USPQ2d 1845 (Fed. Cir.1994). The description at Column 2, lines 10-43 (which the Examiner has identified as the “shaking means”) says nothing about a slider on a shaft ( the corresponding structure for the means) or its equivalent, and it says nothing

about shaking anything loose. “Unless an element performs the identical function specified in the claim, it cannot be an equivalent for purposes of 35 USC §112 ¶ 6.” MPEP § 2184 (citing *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F2d 931, 4 USPQ2d 1737 (Fed. Cir.1987)).

Finally, respecting claims 7-8, and 10-11, Hasselman does not teach “a slider on a shaft, the knurled slider being constrained to slide between a starter tap holder and a spacer bushing.” The cap 46 (which the Examiner has identified as the “knurled slider”) does not slide. It is screwed onto the threaded outer end of a shaft 43 which extends from the grip 41 of the ball starter 15. (Hasselman, column 3, lines 50-53.) If a musket ball 55 becomes lodged in the breech 21, the cap 46 is removed from the ball starter 15 to form the instrument 59. (Hasselman, column 4, lines 8-11.)

In addition, Hasselman does not teach the primer recited in claims 9 and 11. The musket ball 55 (which the Examiner has identified as “a lodged ordnance component”) does not prime anything.

Therefore, the rejection of claims 1-11 under 35 USC §102(b) as anticipated by Hasselman cannot stand.

Mirles discloses a power tool 10 for threading an opening 38 in a workpiece 40 with a tap 30. The power tool 10 includes a chuck 32 which holds the tap 30. Handles 12 -14 extend in opposite directions from the chuck 32. A pneumatic motor 24 is mounted in the handle 14 and is connected with the chuck 32. An electric motor could be used, if desired. During tapping of the opening 38 in the workpiece 40, the motor 24 is operated to rotate the tap 30 while an operator grips the handles 12-14.

Mirles does not anticipate the invention recited in claims 1-5.

First, Mirles' device does not meet the preamble limitation, "A tool for removing a damaged primer from the primer chamber of a cannon." The preambles of the claims recite the removing tool as being intended for damaged primers, and the bodies of the claims recite structural relationships with the removed damaged-primers. For example, claim 1 recites means for running a tap into the damaged primer, and means for shaking the damaged primer loose. Therefore, the preambles of the claims have given life and meaning to these recitations in the claims, and these factual differences were not properly considered in evaluating the invention against the teachings of the prior art. See *Ex parte Kice*, 211 USPQ 560 (POBA 1980).

Mirles' device does not meet the preamble limitation, "A tool for removing a damaged primer from the primer chamber of a cannon." Mirles' device is a power tool for threading an opening in a workpiece with a tap.

Next, respecting claims 1-5, Mirles does not teach "means for shaking the damaged primer loose from the primer chamber so that the damaged primer comes out of the primer chamber on the edge of the tap." 35 USC §112 ¶ 6 provides that an element in a claim for a combination may be expressed as a means for performing a specified function and shall be construed to cover the corresponding structure described in the specification and equivalents thereof. 35 USC §112 ¶ 6 applies as part of a patentability determination in the PTO. *In re Donaldson Co.*, 16 F3d 1189, 29 USPQ2d 1845 (Fed. Cir.1994). The pneumatic motor 24 (which the Examiner has identified as the "shaking means") is not the same as or an equivalent of applicant's slider on a shaft (the corresponding structure for the means), and it does not shake

anything loose. The pneumatic motor 24 rotates a tap 30 in a clockwise direction to thread a hole 38 in a workpiece 40. (Mirles, column 2, lines 49-55.) . “Unless an element performs the identical function specified in the claim, it cannot be an equivalent for purposes of 35 USC §112 ¶ 6.” MPEP § 2184 (citing *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F2d 931, 4 USPQ2d 1737 (Fed. Cir.1987)).

Finally, respecting claims 3-5, Mirles does not teach “a spacer bushing attached to the handle.” The ratchet mechanism 96 (which the Examiner has identified as the “spacer bushing”) is not a cylindrical metal sleeve for holding two members at a given distance from each other. It includes a ratchet pawl 152 and it functions as a one-way clutch to convert movement of the yoke 144 to a one-way drive which rotates the chuck 32 about the axis 34. (Mirles, column 4, lines 43-45; lines 56-57.) Therefore, the rejection of claims 1-5 under 35 USC §102 (b) as anticipated by Mirles cannot stand either.

Harchar discloses an apparatus for removing a musket ball 20 from the barrel 12 of a muzzle-loading gun 10. A bracing block 32 is designed to cooperate with the muzzle to permit a ramrod 18 to pass through it. A screw jag tool 24 is secured to the end of the ramrod 18 and is engaged with the musket ball 20. A removal block 52 is attached to the bracing block 32 by an articulating joint assembly 40. The removal block 52 has split rings 56 positioned within a chamber aligned with the bracing block 32 and the ramrod 18. The removal block 52 is moved up and down. The split rings 56 frictionally engage the ramrod 18 only on the upward movement. Successive upward movements remove the ramrod from the muzzle with the musket ball 20 attached thereto.

Harchar does not anticipate the invention recited in claims 1-5.

First of all, the Examiner has disregarded the preambles in claims 1-5 calling for “A tool for removing a damaged primer from the primer chamber of a cannon.” The preambles of the claims recite the removing tool as being intended for damaged primers, and the bodies of the claims recite structural relationships with the removed damaged-primers. For example, claim 1 recites means for running a tap into the damaged primer, and means for shaking the damaged primer loose. Therefore, the preambles of the claims have given life and meaning to these recitations in the claims, and these factual differences were not properly considered in evaluating the invention against the teachings of the prior art. See *Ex parte Kice*, 211 USPQ 560 (POBA 1980). Harchar’s device does not meet the preamble limitation, “A tool for removing a damaged primer from the primer chamber of a cannon.” His device is an apparatus for removing a musket ball from the barrel of a muzzle-loading gun.

Next, respecting claims 1-5, Hasselman does not teach “means for shaking the damaged primer loose from the primer chamber so that the damaged primer comes out of the primer chamber on the edge of the tap.” 35 USC §112 ¶ 6 provides that an element in a claim for a combination may be expressed as a means for performing a specified function and shall be construed to cover the corresponding structure described in the specification and equivalents thereof. 35 USC §112 ¶ 6 applies as part of a patentability determination in the PTO. *In re Donaldson Co.*, 16 F3d 1189, 29 USPQ2d 1845 (Fed. Cir.1994). The description at Column 3, lines 40-52 says nothing about shaking anything loose. The Examiner has apparently identified the ramrod 18 as the “means for shaking the primer loose” because it may be twisted by

the user. But it is not twisted to loosen anything. It is twisted so that the external threads of the screw jag tool 24 will penetrate the hard musket ball 20. Furthermore, “twist” and “shake” are not synonyms. The ramrod 18 is not the same or an equivalent of a slider on a shaft (the corresponding structure for the means). “Unless an element performs the identical function specified in the claim, it cannot be an equivalent for purposes of 35 USC §112 ¶ 6.” MPEP § 2184 (citing *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F2d 931, 4 USPQ2d 1737 (Fed. Cir.1987)).

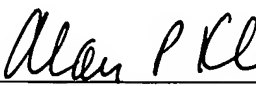
Finally, respecting claim 5, Harchar does not teach “a shaft having one end connected to the starter tap holder and the other end connected to the spacer bushing.”

Therefore, the rejection of claims 1-5 under 35 USC §102 (b) as anticipated by Harchar cannot stand either.

The prior art made of record and not relied on has also been thoroughly reviewed and is not seen as providing any teachings, singly or in combination, to negate patentability of the claimed structure.

In conclusion, claims 1-11 are deemed allowable. Since no other issues are presented for consideration, allowance of this application and early notice of allowability is respectfully requested.

Respectfully submitted  
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